NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE SPECIFICATION

RESTORATION AND MANAGEMENT OF DECLINING HABITATS

(acre)
Code 643

GENERAL SPECIFICATION

Procedures, technical details and other information listed below provide additional guidance for carrying out selected components of the named practice This material is referenced from the conservation practice standard for restoration and management of declining habitats and supplements the requirements and considerations listed therein.

PURPOSE

The purpose is to restore and manage wildlife habitat which is declining.

Declining habitats in New Mexico listed in Biological Report #28, National Biological Service are riparian forests and large streams. These two ecosystems are very closely associated and indeed, each depends upon the other. The large river systems have been modified to the extent that the flows are highly regulated by storage dams, irrigation diversions, dikes and levies. The controlled water flows do not allow for the flooding necessary to replace riparian habitats. Restoration of the natural flood regime, in these large rivers, is beyond the scope of NRCS Standards and Specifications. Some smaller streams still flood naturally and riparian restoration is mainly a matter of management. The regulated flows also define the in stream habitat for fish so that there is minimal opportunity for improvement.

The restoration and management of riparian vegetation can be accomplished by planting native trees, shrubs and grass in the riparian zone and manageing them to insure their survival. This specification endeavors to restore riparian habitats along large and small rivers and streams by planting riparian vegetation, managing competing uses, and installing small structures for water control.

PLANTING REQUIREMENTS

Dormant Pole planting - Cottonwoods and willows can be readily planted using dormant cuttings in late winter and placing the bottom end into the water table. No leaves should be on the pole.

In some situations irrigation can be used to get the trees started and can be turned off after several growing seasons when the tree roots reach the water table.

The ratio of willows to cottonwoods should be 75% willow to 25% cottonwoods in a mature forest.

Species of trees such as mesquite will need to be transplanted or grown from seed and irrigated until established.

Grasses, shrubs and forbs can be seeded.

SOILS

For dormant pole plantings lighter textured soils are best. Sandy to loamy soils provide the best conditions for cuttings to root and absorb water.

Clayey or silty soils inhibit root growth and restrict aeration. Salty soils (salinity >3000 ppm) inhibit growth of cottonwoods and willows.

WATER TABLE

The water table should be within 2 to 10 feet under the surface for best results in rooting dormant poles. Pole bottoms must be into the summer water table which may be deeper than the winter water table. In many areas the water table rises in the summer due to irrigation. Cottonwoods will die if inundated with water for more that one month, whereas willows can stand longer periods of inundation. Mesquites, ash, elderberry, cannot stand to be inundated for very long, but will take advantage of a deeper water table when fully established.

MANAGEMENT TO BENEFIT HABITAT.

Riparian habitats are used by most wildlife species at some time in their life span. Riparian habitats are used by most neo-tropical migratory birds for nesting, feeding and roosting in the summer. Restoring and maintaining multiple layers of mixed age, multiple species vegetation provides the optimum opportunity for the most species of wildlife.

Grazing management must provide for the survival of seedling plants, accomodate ground nesting birds as well as others, leave adequate cover on the ground for survival of small mammals, and maintain the native plant community.

Brush management may be needed to control or reduce undesirable species such as salt cedar, which will be a multi-year project. In the case of salty soils, salt cedar may be the only tree able to survive. If salt cedar is to be removed, it is imperative to determine if other plant species will survive after planting.

APPLICABLE PRACTICES

Tree/shrub establishment - 612
Brush Management - 314
Fence - 382
Riparian Forest Buffer - 391
Structure for water control - 587
Others

PLANS AND SPECIFICATIONS

Specifications for this practice shall be prepared for each habitat type and locality. Specifications shall be recorded using approved specification sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation.

OPERATION AND MAINTANENCE

The following actions shall be carried out to insure that this practice functions as intended throughout its expected life. These actions include normal repetitive activities in the application and use of the practice (operation), and repair and upkeep of the practice(maintenance).

Dead trees should be left standing for use as a perch, but new replacements should be planted to maintain the number and ratio of the trees.

Insect pests may need to be controlled if infestations are damaging the plants.

Beavers, rabbits, gophers and other animals may damage or destroy plantings. Physical barriers around each tree or an animal reduction program may be needed to insure survival of the plants.